



Department of Energy  
Pacific Area Support Office  
P. O. Box 29939  
Honolulu, Hawaii 96820

JUL 17 1978

Roger Ray  
Assistant for Pacific Operations, NV

RECOMMENDATION FOR A REPLACEMENT OF THE R.V. LIKTANUR

The enclosed report is in response to your request that PASO provide the background of our search for a replacement of the R.V. Liktanur, along with our conclusions and recommendations.

We believe that these efforts have been rewarded to the extent that funding commitments are forthcoming in time to exercise the option recommended in the enclosed report.

We are naturally most anxious to learn of developments associated with this recommendation and stand ready to provide any further required information.

Original Signed By  
W. J. STANLEY

W. J. Stanley ...  
Director

OP-515  
HUB:jhf

Enclosure:  
As indicated

cc: Robert W. Taft, AM/PE&B, w/encl  
Ray D. Duncan, AM/Admin., w/encl

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## BACKGROUND

Program needs in the Marshall Islands led the Department of Energy (then ERDA) into an agreement with the Army whereby DOE acquired use and control of LCU-26 which was renamed the R.V. Liktanur in 1975. The vessel was operated out of Kwajalein with crew and material support provided by the Kwajalein support contractor, Global Associates, Inc., under an Interagency Support Agreement. Costs for this support averaged close to \$400,000 annually with sailing days scheduling at an ambitious 240 for FY 1978. DOE bio-medical and environmental efforts by BNL, LLL, U of Washington, U of Hawaii, to mention a few, were successfully supported under very difficult circumstances by the R. V. Liktanur until December 1977, when old age and storm damage rendered her inoperable for future open sea use.

In the interim period, in order to meet ongoing program commitments, PASO twice arranged with the TTPI Government for the loan of vessels on a reimbursable basis. This has proven very unsatisfactory for three reasons. First, the reimbursable daily loan rate and the costs associated with modifying the M.V. Caroline Islands on the April-May 1978 mission approached \$100,000 or one-fourth of the total annual funds available. Secondly, and in spite of the efforts to modify the vessel satisfactorily, the scientific personnel were subjected to unusually harsh conditions as to accommodations and sanitation. Third, the Marshall Islands press made critical remarks as to why the DOE got priority use of a TTPI ship while other vital program needs involving use of a ship were being neglected.

## SEARCH FOR REPLACEMENT VESSEL

NVO, PASO and Holmes & Narver immediately undertook the task of searching various commercial and governmental systems for a suitable replacement within reasonable cost parameters, both as to acquiring and/or activating a ship, and for operating costs. The ideal vessel overall is one which has a beaching capability to satisfy loading and unloading requirements at remote atolls. It should be classified as "ocean going" which an LCU is not.

One main thrust of the search involved an effort to get a commitment from the Trust Territory of the Pacific Islands for the long term use of the "M.V. Caroline Islands" on a reimbursable basis. The High Commissioner advised the Assistant for Pacific Operations, NV, in his letter dated May 5, 1978, that this vessel was needed for TTPI use. He did offer the use of an Islander class vessel, the M.V. Robert DeBrum but we found this to be unsuitable because of her age, poor condition and lack of beaching capability.

Another potentially satisfactory vessel, namely the FS-411, was located at the Charleston, S.C. Property Disposal area. This vessel

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was inspected by marine engineers as well as PASO and Nevada staff and found to be unsuitable because of large crew requirements, and lack of versatility for lagoon operations.

Certain other possibilities were explored with the most promising described below.

YFU-81

A vessel was located on Guam which permits a certain enthusiasm. This is a Navy vessel now in storage which had been used during and after the Vietnam period on the open ocean. It is similar to an LCU only larger and stronger, and it has a beaching capability. PASO contacted the Navy through Pearl Harbor and learned that the YFU-81 had not been declared excess property but there was a good possibility that it could be acquired by DOE on a loan basis. This information was relayed to NVO Property Management who in turn expressed preliminary interest in the vessel to the Office of the Chief, Naval Operations.

Marine Engineers were dispatched to Guam to check the condition of YFU-81 and to provide PASO with a report on both the ship and the facilities available to modify and reactivate her should this be found to be a desirable course of action. It was learned subsequently that a sister ship, YFU-80 was being activated for use in the Bering Sea by a private concern in Seattle. Marine Engineers were again dispatched to take advantage of the opportunity to witness the finished product and to gather enough data to provide DOE with accurate cost information necessary to refit, modify and reactivate YFU-81 to accommodate DOE program needs. All these reports have been forwarded under separate cover to the Assistant for Pacific Operations, and are indeed encouraging.

CONCLUSIONS

The six months' search effort has resulted in the following conclusions:

1. It would not be cost effective for DOE to buy a ship.
2. Chartering suitable vessels on a mission basis is at least as costly as operating a "loaned" vessel on a full time basis and the type needed is so specific as to not be readily available.
3. The TTPI cannot be considered for long term vessel commitments, nor should we consider it any longer for the short term for cost reasons and so as to avoid criticism that DOE is tapping a TTPI asset which is in short supply.

RECOMMENDATION

PASO is satisfied that YFU-81 is an ideal vessel overall and could well serve long term DOE commitments for many years. For approximately

  
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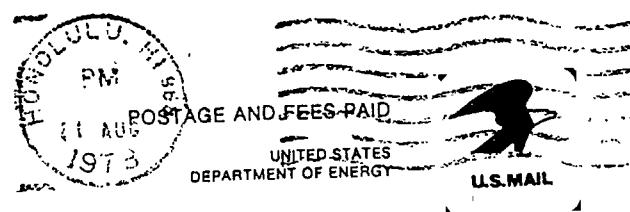
\$400,000 the vessel could be reactivated to a standard of operational quality and safety necessary to our programs and people. This would include modifications to accommodate scientific personnel in a decent mode under otherwise trying conditions. It would have a stand-alone capability for up to two months which could become more important as the Enewetak cleanup and rehabilitation project draws to a conclusion. The proposed annual operating costs are very similar to those now funded for the LCU. The Ballistic Defense Missile Systems Command in Huntsville, Alabama, who operates Kwajalein Missile Range, has given PASO verbal indications that their contractor would provide support on Kwajalein as was the case with the R.V. Liktanur.

On the whole, it seems to us that a good, relatively inexpensive solution to DOE requirements is available in YFU-81 and since other entities have expressed a desire to the Navy for this vessel, this option may not remain open much longer.

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